

January 1, 2014

Actuarial Valuation Report

Weymouth Retirement Board

Lawrence B. Stone



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November 24, 2014

Weymouth Retirement Board
807 Broad Street
Weymouth, MA 02189

Dear Weymouth Retirement Board:

Stone Consulting, Inc. has performed a January 1, 2014 actuarial valuation of the Weymouth Retirement System. This valuation and report was prepared using generally accepted actuarial principles and practices and meets the parameters set by the Governmental Accounting Standards Board Statement (GASB) No. 27. To the best of our knowledge, this report is complete and accurate, and the assumptions used represent our best estimate of anticipated experience of the system.

As part of performing the valuation, Stone Consulting, Inc. was furnished member data by the Weymouth Retirement System's administrative staff. Although examined for general reasonableness, the data was not audited by the actuary. In addition, the administrative staff furnished financial statements that were not audited by the actuary or by the plan's auditors.

The funding objective of the plan is to fully fund the system while attempting to maintain a stable contribution amount for the upcoming fiscal year that is consistent with prior funding schedules or if employer finances allow it, to increase the contribution amount. This funding objective is being met.

We anticipate over time the contribution level to decrease as a percentage of payroll. The contribution rate is determined by adding the normal cost plus an amortization of the unfunded actuarial accrued liability. The normal cost is expected to remain at a level percentage of payroll. The length of the funding schedule contained in this actuarial valuation report is seventeen years (fully funded by 2032), three years less than the remaining period from the prior schedule. The amortization of the unfunded liability is set to increase by 3.09995% each year.

The contribution amount for Fiscal Year 2016 is \$9,834,951 which is consistent with the anticipated contribution amount from the prior funding schedule. PERAC and GASB guidelines indicate that actuarial valuations should be conducted at least every other year. The Weymouth Retirement Board conducted their previous actuarial valuation effective January 1, 2012.

We are pleased to present the results of this valuation. If the Retirement Board has any questions on the content of this report, we would be glad to respond. Please note that this report is meant to be used in its entirety. Use of excerpts of this report may result in inaccurate or misleading understanding of the results.

I, Lawrence Stone, am a consultant for Stone Consulting, Inc. I am a member of the American Academy of Actuaries and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,
STONE CONSULTING, INC.
Actuaries for the Plan

Lawrence B. Stone
Member, American Academy of Actuaries

TABLE OF CONTENTS

	PAGE
Certification Letter	
Introduction	1
January 1, 2014 Valuation Summary	1
January 1, 2014 Actuarial Valuation Results.....	3
Demographic Information	4
History of Active Participants	4
Distribution of Plan Members	5
Valuation Methodology	7
Actuarial Accrued Liability and Funded Status	8
History of Actuarial Valuation of Assets (AVA) and Unfunded Actuarial Accrued Liability (UAAL)	9
Development of Funding Schedule.....	10
Funding Schedule	11
Assumptions and Methodology Summary	12
Assets.....	13
Disclosure Information Under GASB Statement 25	14
PERAC Information Disclosure	15
Actuarial Methods and Assumptions	16
Summary of Principal Provisions.....	20
Glossary of Terms.....	23

Introduction

This report presents the results of the actuarial valuation of the Weymouth Retirement System. The valuation was performed at the request of the Retirement Board as of January 1, 2014 for the purpose of determining the contribution requirements for Fiscal Year 2016 and beyond. The contribution requirements are based on:

- The financial condition of the system as of December 31, 2013
- The benefit provisions of M.G.L. Chapter 32 and related statutes;
- The demographics of members in the system (i.e., active and inactive participants, retirees and beneficiaries as of January 1, 2014);
- Economic assumptions regarding salary increases and investment earnings; and
- Other actuarial assumptions (e.g., withdrawals, retirement, mortality, etc.)

January 1, 2014 Valuation Summary

	January 1, 2014	January 1, 2012	Change
Contribution Fiscal 2016	\$9,834,951	\$9,834,951	\$0
Funding Schedule Length	17 years	20 years	-3 years
Amortization Increase	3.09995%	3.61%	-0.51%
Funding Ratio	65%	56%	9%
Interest Rate Assumption	7.875%	7.875%	0.00%
Salary Increase Rate Assumption	Select and Ultimate	Select and Ultimate	0.00%
	Groups 1 and 2: 5.80% first 7 years	Groups 1 and 2: 5.80% first 7 years	
	Police: 8.50% first year, 6.50% next two years	Police: 8.50% first year, 6.50% next two years	
	Fire: 8.50% first 6 years	Fire: 8.50% first 6 years	
	3.50% Ultimate	3.50% Ultimate	

- The Fiscal Year 2016 contribution is the same as the planned 2016 contribution.
- The System, over the two-year period from January 1, 2012 through December 31, 2013, experienced a 16.0% annual return on the market value of assets versus our assumption of a 7.875% return. There was approximately a \$14.0 million net actuarial gain in calendar year 2013 and an \$8.2 million net actuarial gain in calendar year 2012. The System's asset portfolio, effective December 31, 2013 is approximately 80% equities, alternative investments, hedge funds and real estate and 20% fixed income and short-term investments. The interest rate assumption was maintained at 7.875% to reflect anticipated future market performance.

- The salary increase assumption was maintained from the prior valuation. We used a select and ultimate table (Ultimate rate of 3.50%; Group 1 and 2, 5.8% first 7 years; Police, 8.50% first year, 6.50% next two years; Fire, 8.50% first 6 years). This assumption is based on expected future experience. Total compensation changed by 2.7% over the prior valuation; however average annual compensation (compensation divided by number of active members) only changed by 1.1%.
- The funding level of the Weymouth Retirement System is 65% compared to 56% for the January 1, 2012 actuarial valuation. Chapter 68 requires a minimum funding ratio of 65% along with additional criteria in order to avoid being labeled an “underperforming system”. The Weymouth Retirement Board would not be considered an underperforming system due to the funding ratio being over 65% (when using a slightly higher interest rate than the valuation interest rate). The funding level is estimated to be above the median for Massachusetts’ Contributory Retirement Systems.

The schedule length is seventeen (17) years, which is three years shorter than the remaining twenty from the prior schedule. The maximum period permitted under Section 22D of Chapter 32 of the Massachusetts General Laws is 15 years (Fiscal 2030), but this may be extended for another ten years under Section 22F. The payments are set so that the amortization amount will increase by 3.10% each year. Previously, the amortization was set so to increase by 3.61% annually. This schedule change resulted in a \$0 increase as compared to the expected FY 2016 contribution level from the prior valuation.

- Non-economic assumptions were changed from the January 1, 2012 actuarial valuation. The mortality assumption is based upon the RP-2000 mortality table (sex-distinct) projected with generational mortality and Scale BB. The previous assumption used the RP-2000 table projected 17 years with Scale AA. The net effect of this change increased the accrued liability by \$9.9 million.
- Projection using generational mortality produces a different mortality table for each year of birth. In this manner, the expected continued increase in how long a person lives is reflected. For example, a participant who is currently age 25 (and will not turn 65 for another 40 years) would be expected to live appreciably longer past 65 years of age than someone who is currently 65. Thus a superannuation retirement benefit starting in 2054 would be appreciably longer than a similar benefit beginning in 2014.

January 1, 2014 Actuarial Valuation Results

	January 1, 2014	January 1, 2012	Percentage Change
Funding			
Contribution for Fiscal 2016	\$9,834,951		
Contribution for Fiscal 2016 based on current schedule		\$9,834,951	0.0%
Members *			
■ Actives			
a. Number	823	810	1.6%
b. Annual Compensation	\$35,785,913	\$34,840,694	2.7%
c. Average Annual Compensation	\$43,482	\$43,013	1.1%
d. Average Attained Age	49.2	48.6	1.2%
e. Average Past Service	11.6	11.5	0.9%
■ Retired, Disabled and Beneficiaries			
a. Number	624	628	-0.6%
b. Total Benefits*	\$16,039,891	\$14,822,881	8.2%
c. Average Benefits*	\$25,705	\$23,603	8.9%
d. Average Age	73.3	73.9	-0.8%
■ Inactives			
a. Number	144	147	-2.0%
Normal Cost			
a. Total Normal Cost as of January 1, 2014	\$4,735,778	\$4,466,008	6.0%
b. Less Expected Members' Contributions	3,246,303	3,144,038	3.3%
c. Normal Cost to be funded by the Municipality	\$1,489,475	\$1,321,970	12.7%
d. Adjustment to July 1, 2015	95,956	85,165	12.7%
e. Administrative Expense Assumption	403,000	376,477	7.0%
f. Normal Cost Adjusted to July 1, 2015	\$1,988,431	\$1,783,611	11.5%
Actuarial Accrued Liability as of January 1, 2014			
a. Active Members	\$101,438,571	\$93,378,974	8.6%
b. Inactive Members	1,293,927	1,004,027	28.9%
c. Retired Members and Beneficiaries	153,040,771	137,629,627	11.2%
d. Total	\$255,773,269	\$232,012,628	10.2%
Unfunded Actuarial Accrued Liability			
a. Actuarial Accrued Liability as of January 1, 2014	\$255,773,269	\$232,012,628	10.2%
b. Less Actuarial Value of Assets as of January 1, 2014	165,228,288	128,909,837	28.2%
c. Unfunded Actuarial Accrued Liability as of January 1, 2014	\$90,544,981	\$103,102,791	-12.2%
d. Adjustment to July 1, 2015	\$3,575,340	\$5,629,872	
e. Unfunded Actuarial Accrued Liability as of July 1, 2015	\$94,120,321	\$108,732,663	

*Excluding State reimbursed COLA

Demographic Information

	January 1, 2014	Percentage Change
Members		
■ Actives		
a. Number	823	1.6%
b. Annual Compensation	\$35,785,913	2.7%
c. Average Annual Compensation	\$43,482	1.1%
d. Average Attained Age	49.2	1.2%
e. Average Past Service	11.6	0.9%
■ Retired, Disabled and Beneficiaries		
a. Number	624	-0.6%
b. Total Annual Retirement Allowance excluding State-reimbursed COLA	\$16,039,891	8.2%
■ Inactives		
a. Number	144	-2.0%

- The data was supplied by the Weymouth Retirement Board. The data was checked under broad parameters for reasonableness. With the assistance of the staff of the Weymouth Retirement Board, we were able to develop a database sufficient for valuation purposes.

History of Active Participants

Valuation Year	Number	Average Age	Average Past Service	Average Ann'l Compensation
2014	823	49.2	11.6	\$43,482
2012	810	48.6	11.5	\$43,013
2010	804	48.8	11.3	\$41,500
2007	856	47.3	10.5	\$40,664
2005	827	46.8	9.9	\$37,088
2004	823	46.0	9.2	\$34,299

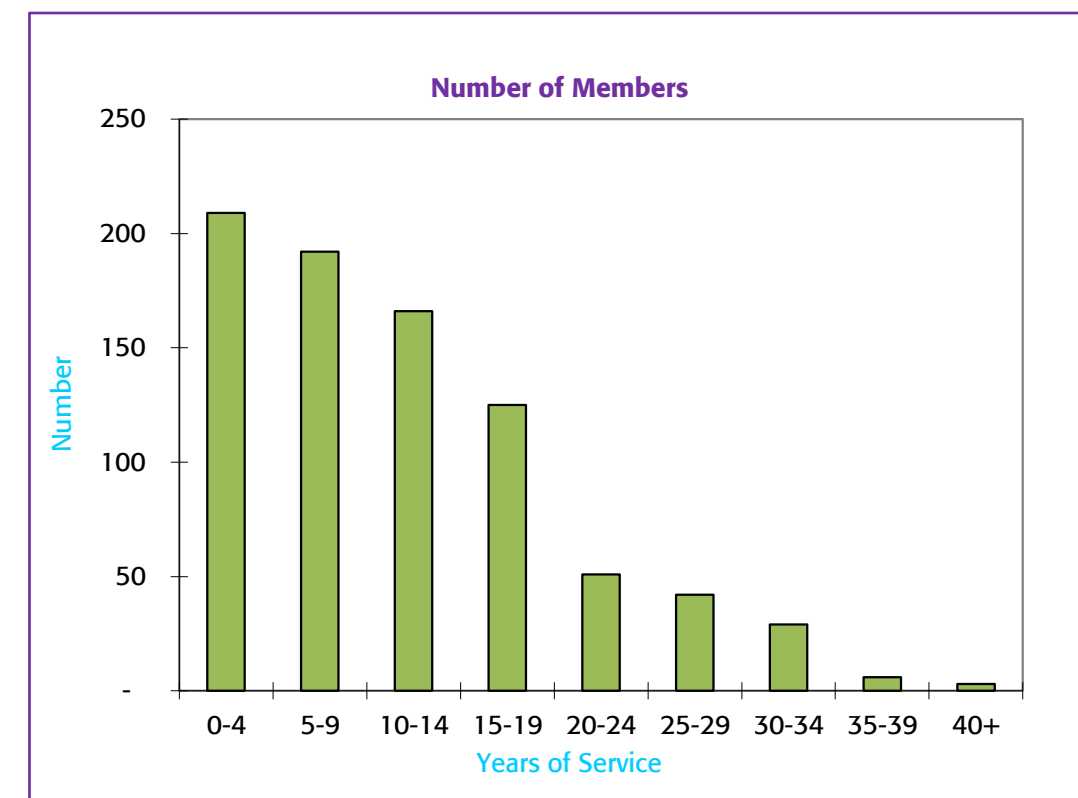
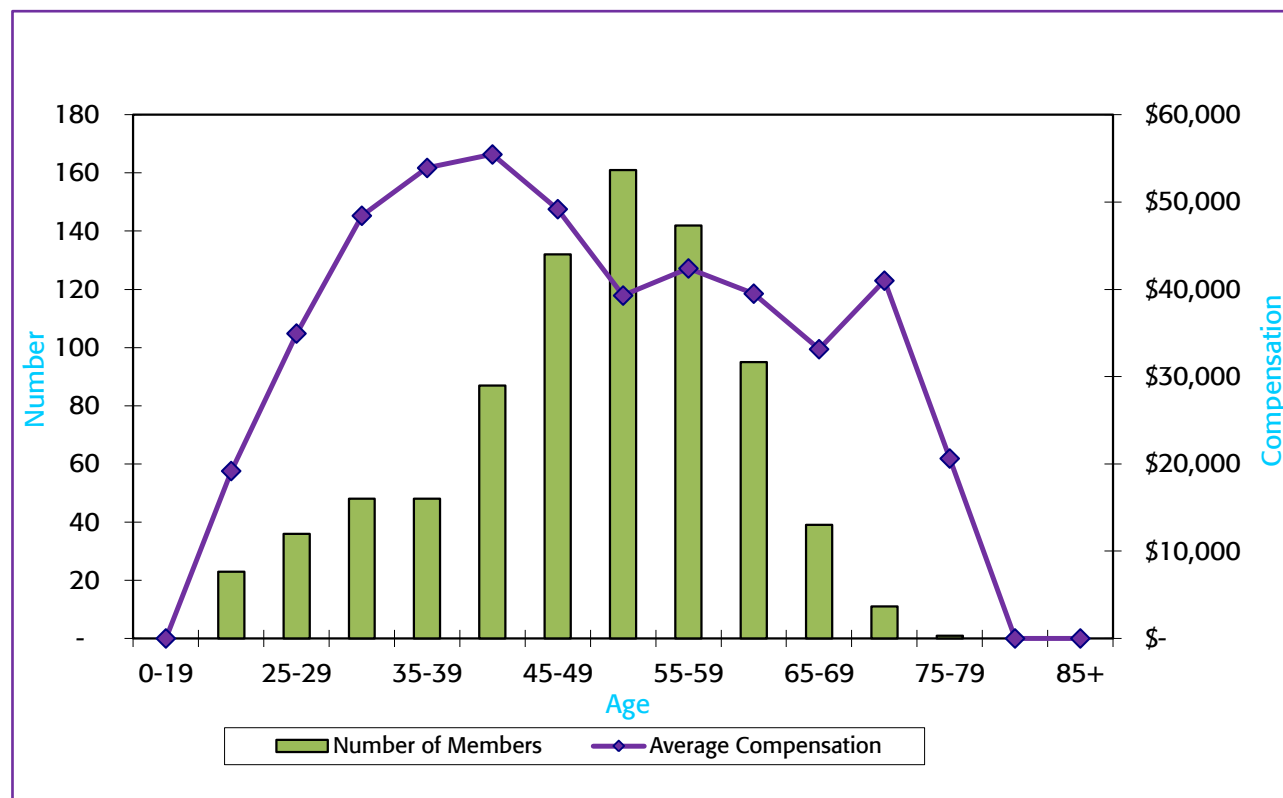
- Employee age has increased by 3.2 years and service has increased by 2.4 years over the course of the past ten years. This is consistent with the trend in the Commonwealth towards an aging of the employee population. Average annual compensation has grown by 26.8% (2.4% annually) over the same time period.

The charts on the following pages summarize demographic information regarding active and retiree members.

Distribution of Plan Members as of January 1, 2014

Active Members

AGE	0-4 Years	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40 + Years	Total	Total Compensation	Average Compensation
0-19	-	-	-	-	-	-	-	-	-	-	\$ -	\$ -
20-24	22	1	-	-	-	-	-	-	-	23	441,131	19,180
25-29	34	2	-	-	-	-	-	-	-	36	1,257,507	34,931
30-34	19	27	2	-	-	-	-	-	-	48	2,324,456	48,426
35-39	12	13	21	2	-	-	-	-	-	48	2,587,348	53,903
40-44	20	21	12	29	5	-	-	-	-	87	4,823,971	55,448
45-49	37	28	22	26	14	5	-	-	-	132	6,491,637	49,179
50-54	24	46	41	21	7	12	10	-	-	161	6,324,453	39,282
55-59	23	27	37	20	6	16	11	2	-	142	6,019,183	42,389
60-64	13	17	20	17	12	6	5	3	2	95	3,752,424	39,499
65-69	4	8	10	6	6	1	3	-	1	39	1,292,312	33,136
70-74	1	2	1	4	1	2	-	-	-	11	450,878	40,989
75-79	-	-	-	-	-	-	-	1	-	1	20,613	20,613
80-84	-	-	-	-	-	-	-	-	-	-	-	-
85+	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	209	192	166	125	51	42	29	6	3	823	\$ 35,785,913	\$ 43,482

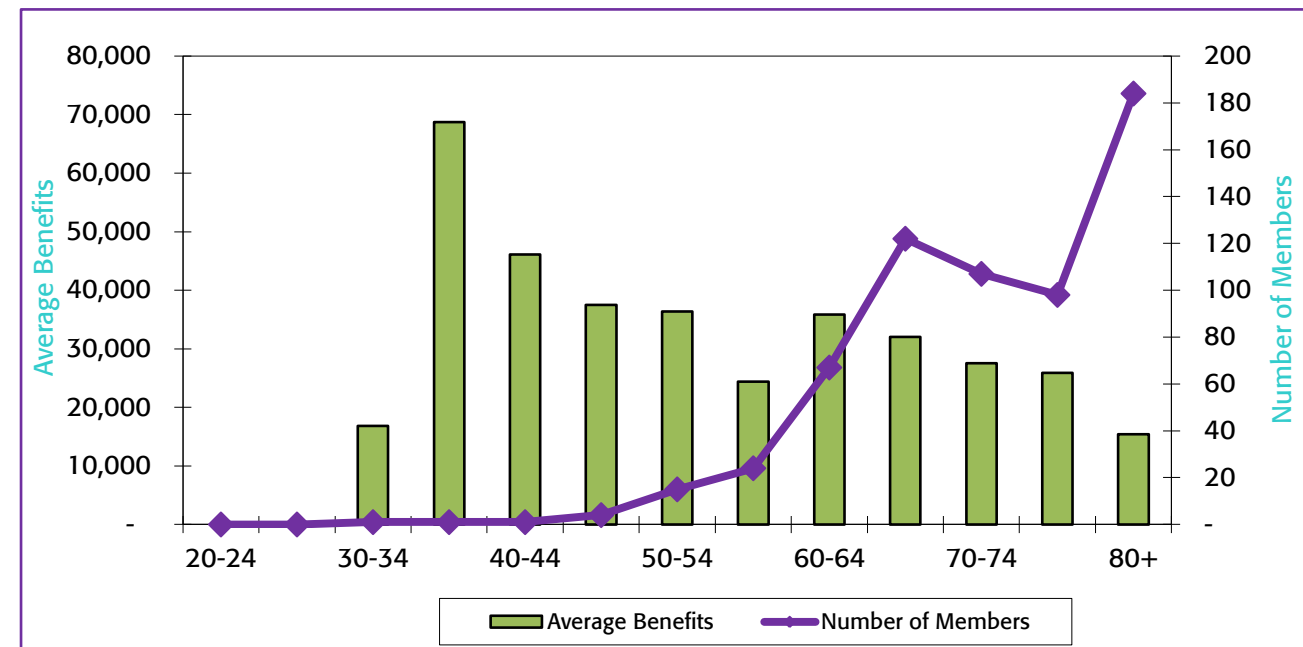


Distribution of Plan Members as of January 1, 2014
Retired Members

Retired Members and Beneficiaries			
Age	Number	Average Benefit	Total Benefit
20-24	-	-	-
25-29	-	-	-
30-34	1	16,817	16,817
35-39	1	68,728	68,728
40-44	-	-	-
45-49	1	19,748	19,748
50-54	4	15,267	61,067
55-59	23	23,942	550,675
60-64	49	32,924	1,613,254
65-69	101	29,630	2,992,629
70-74	85	25,911	2,202,423
75-79	90	25,988	2,338,948
80+	173	14,935	2,583,703
TOTAL	528	\$ 23,576	\$ 12,447,992

Disabled Members			
Age	Number	Average Benefit	Total Benefit
20-24	-	-	-
25-29	-	-	-
30-34	-	-	-
35-39	-	-	-
40-44	1	46,095	46,095
45-49	3	43,424	130,273
50-54	11	44,100	485,101
55-59	1	34,384	34,384
60-64	18	43,818	788,722
65-69	21	43,415	911,706
70-74	22	33,965	747,220
75-79	8	25,067	200,536
80+	11	22,533	247,862
TOTAL	96	\$ 37,416	\$ 3,591,898

Total			
Age	Number	Average Benefit	Total Benefit
20-24	-	-	-
25-29	-	-	-
30-34	1	16,817	16,817
35-39	1	68,728	68,728
40-44	1	46,095	46,095
45-49	4	37,505	150,021
50-54	15	36,411	546,168
55-59	24	24,377	585,059
60-64	67	35,850	2,401,976
65-69	122	32,003	3,904,336
70-74	107	27,567	2,949,643
75-79	98	25,913	2,539,484
80+	184	15,389	2,831,565
TOTAL	624	\$ 25,705	\$ 16,039,891



Benefits shown are net of State reimbursed COLA.

Valuation Methodology

Stone Consulting, Inc. used the Entry Age Normal actuarial funding method in this actuarial valuation. The use of the Entry Age Normal actuarial funding method is consistent with the requirements of Chapter 32 of the Massachusetts General Laws.

NORMAL COST

	January 1, 2014	% of Payroll*
Gross Normal Cost (GNC)	\$4,735,778	13.2%
Employees Contribution	\$3,246,303	9.1%
Net Normal Cost (NNC)	\$1,489,475	4.2%
Adjusted to Beginning of Fiscal Year 2016	\$95,956	
Administrative Expense	<u>\$403,000</u>	1.1%
Adjusted Net Normal Cost With Admin. Expense	\$1,988,431	

*Payroll paid in 2013 for employees as of January 1, 2014 is \$35,785,913. Payroll for new hires in 2013 was annualized.

- The gross normal cost (GNC) is the “price” of benefits accruing in the current year if the assumptions underlying the normal cost were realized.
- An individual normal cost represents that part of the cost of a member’s future benefits that are assigned to the current year as if the costs are to remain level as a percentage of the member’s pay. Benefits payable under all circumstances (i.e., retirement, death, disability, and withdrawals) are included in this calculation.
- Anticipated employee contributions to be made during the year are subtracted from the GNC to determine employer normal cost, or net normal cost (NNC).
- Administrative expenses added to the NNC. The administrative expense does not include investment manager and custodial fees. These fees are considered part of the interest rate assumption that is net of fees.

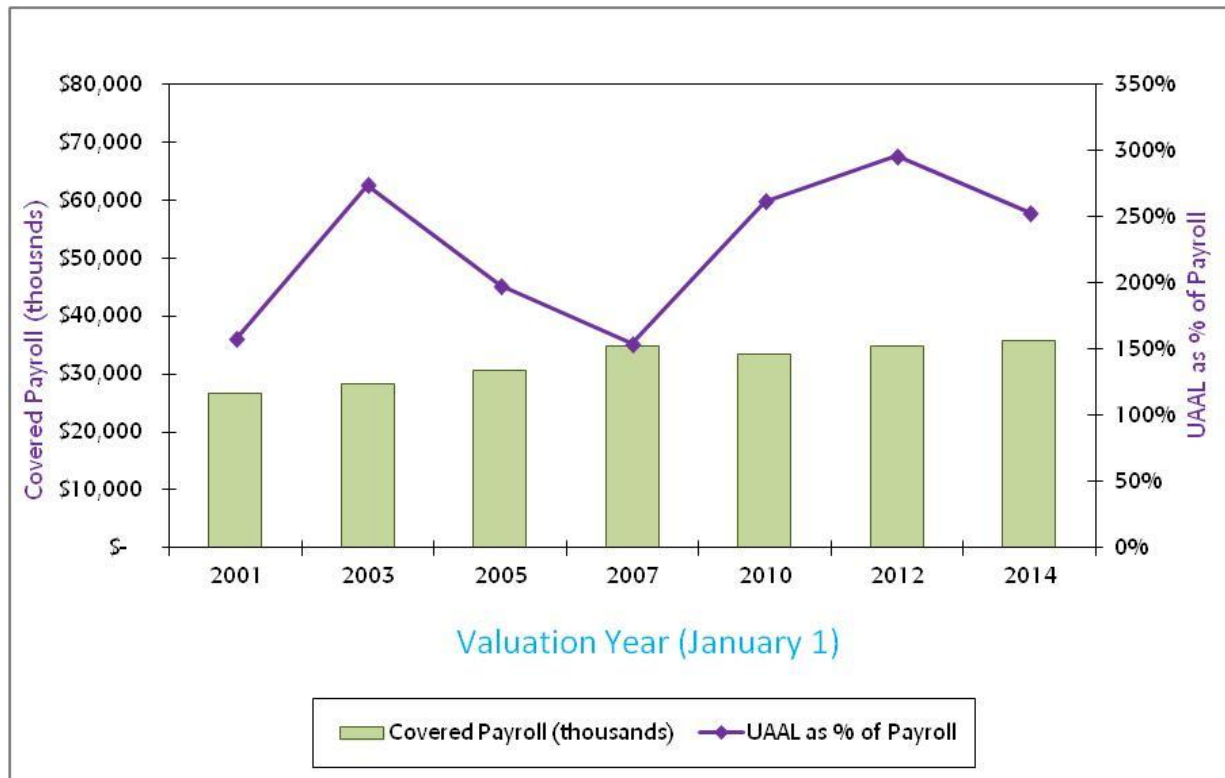
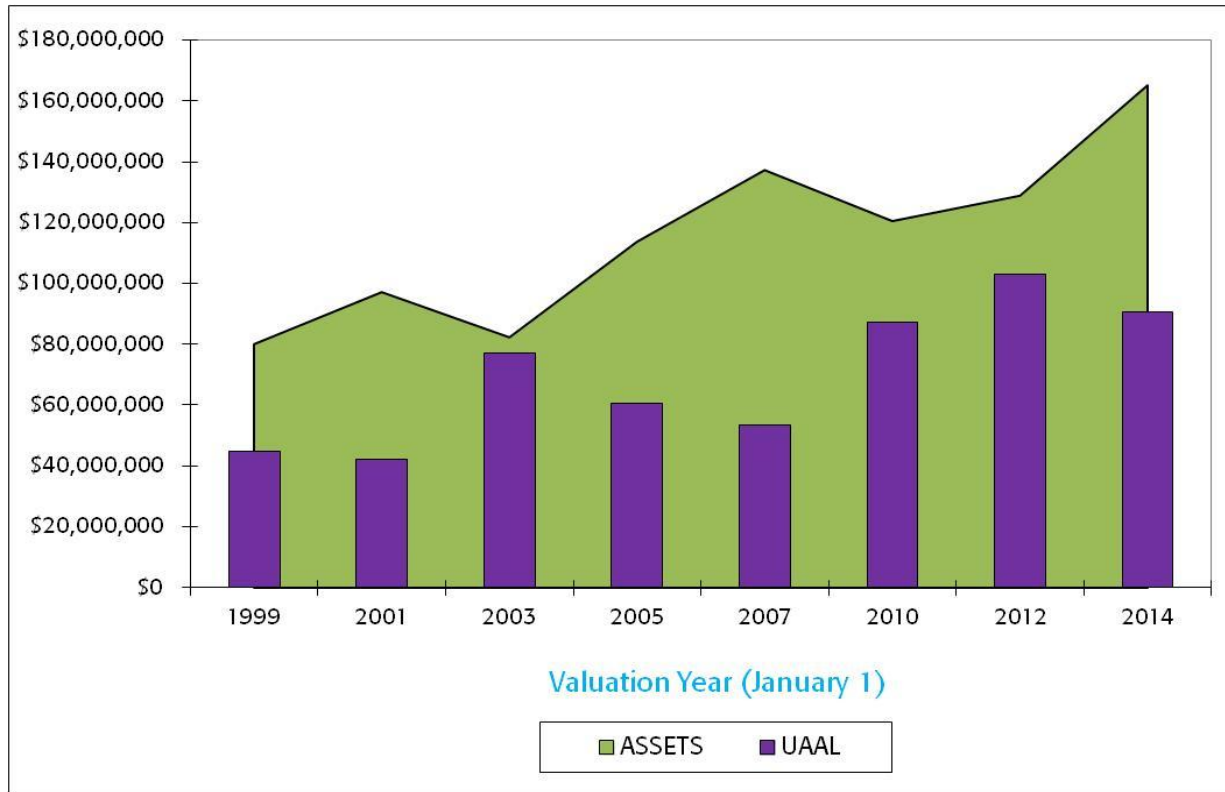
Actuarial Accrued Liability and Funded Status

		January 1, 2014	Percentage Change
Active Actuarial Accrued Liability	\$	101,438,571	8.6%
Superannuation	\$ 92,127,530		
Death	\$ 2,196,880		
Disability	\$ 6,237,731		
Withdrawal	\$ 876,430		
Retiree, Inactive, Survivor and Beneficiary Actuarial Accrued Liability	\$	154,334,698	11.3%
Retirees and Beneficiaries	\$ 114,089,449		
Disabled	\$ 38,951,322		
Inactive	\$ 1,293,927		
Total Actuarial Accrued Liability (AAL)	\$	255,773,269	10.2%
Actuarial Value of Assets (AVA)	\$	165,228,288	28.2%
Unfunded Actuarial Accrued Liability	\$	90,544,981	-12.2%
Funded Ratio (AVA / AAL)			
2014 (7.875% interest rate):	65%		
2012 (7.875% interest rate):	56%		

- Actuarial Accrued Liability (AAL) is the “price” of benefits attributable to benefits earned in past years, or in other words, represents today’s value of all benefits earned by active and inactive members.
- The total AAL is \$255,773,269. This along with an actuarial value of assets of \$165,228,288 produces a funded status of 65%. This compares to a funded status of 56% for the 2012 valuation.

The chart on the following page is a history of the unfunded actuarial accrued liability (UAAL) and the valuation assets (AVA) over the course of the past eight actuarial valuations.

History of Actuarial Valuation of Assets (AVA) and Unfunded Actuarial Accrued Liability (UAAL)



Development of Funding Schedule

Net Employer Normal Cost for Fiscal 2016 (including admin. expenses)	1,988,431
Net 3(8)(c) Payments	55,390
Amortization	7,791,130
Total Appropriation required for Fiscal 2016	9,834,951

- The funding schedule is composed of the normal cost, the net 3(8)(c) payments and the amortization of the actuarial accrued unfunded liability and is adjusted by the administrative expense assumption. The contribution is assumed to be made at the end of the fiscal year. The 3(8)(c) payments are the amount that the Weymouth Retirement System pays to or receives from other retirement boards for service that a retiree had with a different retirement system. The net 3(8)(c) payments is the difference between what the Weymouth Retirement System paid out minus what was received by the System. The 3(8)(c) payments were not accounted for in the previous valuation.
- The contribution amount for Fiscal 2016 is \$9,834,951. The funding schedule is presented on page 11. The schedule's length is seventeen (17) years (for the fresh start base) which is three years less than remainder of the 22 year schedule from the January 1, 2012 valuation. The maximum funding schedule length allowed by Section 22D of Chapter 32 of the Massachusetts General Laws is fifteen years to Fiscal 2030, and the maximum under Section 22F is twenty-five years, to Fiscal 2040.
- In developing the funding schedule, we used a fresh start approach in which the unfunded actuarial accrued liability (UAAL), other than the UAAL due to past early retirement incentives, is reamortized instead of maintaining the existing amortization amount and separately amortizing the actuarial gain or loss. The use of a fresh-start approach can result in a funding schedule in which the changes in contribution amounts from year to year are more consistent. The amortization increases by about 3.10% each year.

WEYMOUTH RETIREMENT SYSTEM FUNDING SCHEDULE

Fiscal Year	Normal Cost	Unfunded Liability	Funding Amortization of UAL	Net 3(8)(c) Payments	Schedule Contribution
2016	1,988,431	94,120,321	7,791,130	55,390	9,834,951
2017	2,072,939	93,127,615	8,035,821	55,390	10,164,151
2018	2,161,039	91,792,772	8,288,250	55,390	10,504,679
2019	2,252,883	90,080,504	8,548,663	55,390	10,856,936
2020	2,348,631	87,952,473	8,817,315	55,390	11,221,336
2021	2,448,448	85,367,052	9,087,729	55,390	11,591,567
2022	2,552,507	82,286,320	9,373,655	55,390	11,981,552
2023	2,660,988	78,654,537	9,668,634	55,390	12,385,013
2024	2,774,080	74,418,543	9,972,956	55,390	12,802,426
2025	2,891,979	69,520,677	10,286,918	55,390	13,234,287
2026	3,014,888	63,898,417	10,610,829	55,390	13,681,107
2027	3,143,021	57,483,986	10,945,007	55,390	14,143,418
2028	3,276,599	50,203,923	11,289,781	55,390	14,621,770
2029	3,415,854	41,978,630	11,217,746	55,390	14,688,990
2030	3,561,028	33,183,304	11,565,490	55,390	15,181,908
2031	3,712,372	23,320,217	11,924,015	55,390	15,691,777
2032	3,870,148	12,293,653	12,293,653	55,390	16,219,191
2033	4,034,629	0	-	55,390	4,090,019

Amortization of Unfunded Liability as of July 1, 2015

Year	Type	Original Amort. Amount	Percentage Increasing	Original # of Years	Current Amort. Amount	Years Remaining
2005	ERI-HA	4,966	4.50%	24	8,059	13
2005	ERI-Town	143,762	4.50%	24	233,305	13
2006	ERI-HA	6,739	0.00%	15	6,739	5
2016	Fresh Start	7,543,027	3.09995%	17	7,543,027	17

Notes on Amortization of Unfunded Liability

Year is the year the amortization base was established.

Type is the reason for the creation of the base. Examples are Gain/(Loss) or Fresh Start.

Original Amortization Amount is the annual amortization amount when the base was established.

Percentage Increasing is the percentage that the Original Amortization Amount increases per year.

Original # of Years is the number of years over which the base is being amortized.

Current Amortization Amount is the amortization payment amount for this year.

Years Remaining is the number of years left to amortize the base.

Assumptions and Methodology Summary

The principal actuarial assumptions used in this valuation are the same as the assumptions used in the previous valuation, except where noted, and are summarized in the following table:

Valuation Date	January 1, 2014 Valuation
Interest Rate	7.875% (same as prior valuation).
Salary Increase	3.50% Ultimate rate, with the following select periods: <ul style="list-style-type: none"> • Group 1 and 2: 5.8% for the first 7 years of service • Police: 8.50% for the first year of service; 6.50% for the next two years of service • Fire: 8.50% for the first 6 years of service (same as prior valuation)
COLA	3% of \$12,000
COLA Frequency	Granted every year
Mortality	RP-2000 table (sex-distinct) projected with generational mortality and scale BB. For actives the healthy employee table is used, and for retirees the healthy annuitants table is used. For members retired under an Accidental Disability (job-related), 40% of deaths are assumed to be from the same cause as the disability. Disabled mortality is the non-active mortality with ages set forward 2 years. (Prior valuation used RP2000 with 17 year projection as the base table.)
Overall Disability	Groups 1 and 2 50% ordinary disability 50% accidental disability Group 4 10% ordinary disability 90% accidental disability
Retirement Rates	Groups 1 and 2 Ages 55 – 70 Group 4 Ages 50 – 65
Administrative Expense	\$403,000 budget estimated for FY 2016 provided by Weymouth Retirement Board.

Assets

a.	Cash	\$	6,152,179.33
b.	Fixed Income		23,436,456.29
c.	Equities		12,386,541.13
d.	Pooled Domestic Equity Funds		52,819,398.04
e.	Pooled International Equity Funds		28,684,405.31
f.	Pooled Global Equity Funds		5,522,242.87
g.	Pooled Global Fixed Income Funds		3,760,829.35
h.	Pooled Alternative Investments		5,798,082.81
i.	Pooled Real Estate Funds		15,656,249.29
j.	Hedge Funds		<u>11,174,748.75</u>
k.	Sub-Total:	\$	165,391,133.17
l.	Interest Due and Accrued		178,375.20
m.	Prepaid Expenses		3,100.00
n.	Accounts Receivable		123,239.22
o.	Accounts Payable		(467,559.89)
p.	Sub-Total:	\$	(162,845.47)
q.	Market Value of Assets [(k) + (p)]	\$	165,228,287.70

- We were furnished with the System's annual report by the Board. The market value of assets as of December 31, 2013 (adjusted for payables and receivables) is \$165,228,287.70.
- The asset allocation is approximately 20% fixed income, cash, receivables and payables and 80% equities, alternative investments, hedge funds and similar real estate. Historically, 10 to 11% has been the expected long-term rate of return for equities, and 6% to 7% has been the expected long-term rate of return for fixed income securities. Many economists and investment professionals are projecting lower returns of 6.25% to 9.00% for equities and 3.65 to 6.00% for fixed income securities. In light of these projections, as well as historical investment returns, the 7.875% interest rate assumption is within the reasonable assumption range. We encourage close monitoring for changes in investment performance against expectations.
- Actuarial value of assets (AVA) of \$165,228,288 is based on market value of assets.

Disclosure Information Under GASB Statement 25

SCHEDULES OF FUNDING PROGRESS (Dollars In Thousands)

Actuarial Valuation Date	Actuarial Value of Assets A	Actuarial Accrued Liability B	Unfunded AAL (UAAL) B-A	Funded Ratio A/B	Covered Payroll C	UAAL as a % of Covered Payroll (B-A)/C
1/1/2014	\$165,228	\$255,773	\$90,545	65%	\$35,786	253%
1/1/2012	\$128,910	\$232,013	\$103,103	56%	\$34,841	296%
1/1/2010	\$120,566	\$207,894	\$87,328	58%	\$33,366	262%
1/1/2007	\$137,333	\$190,920	\$53,587	72%	\$34,808	154%
1/1/2005	\$113,780	\$174,530	\$60,751	65%	\$30,671	198%

NOTES TO SCHEDULES

Additional information as of the latest actuarial valuation follows:

Valuation Date	1/1/2014
Actuarial cost method	Entry Age Normal
Amortization method	3.10% (approximate)
Remaining amortization period	17 years for the fresh start base
Asset valuation method	Market value of assets: \$165,228,287.70
Actuarial assumptions:	
Investment Rate of Return	7.875% per year
Projected Salary Increases	Group 1 and 2: 5.80% first 7 years of service Police: 8.50% first year of service, 6.50% next two years Fire: 8.50% first 6 years of service 4.25% ultimate rate

■ Weymouth Retirement Board
Actuarial Valuation as of January 1, 2014

PERAC Information Disclosure

The most recent actuarial valuation of the System was prepared by Stone Consulting, Inc. as of January 1, 2014

The normal cost for employees on that date was:	\$3,246,303	9.1%	of payroll
The normal cost for the employer was:	\$1,489,475	4.2%	of payroll

The actuarial liability for active members was:	\$101,438,571
The actuarial liability for retired members was (includes inactives):	\$154,334,698
Total actuarial accrued liability:	\$255,773,269
System assets as of that date:	\$165,228,288
Unfunded actuarial accrued liability:	\$90,544,981

The ratio of system's assets to total actuarial liability was:	65%
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As of that date the total covered employee payroll was:	\$35,785,913
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The principal actuarial assumptions used in the valuation are as follows:	
Investment Return:	7.875% per annum
Rate of Salary Increase:	Select and ultimate rate (4.25% ultimate rate)

SCHEDULE OF FUNDING PROGRESS (Dollars in \$000's)

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
1/1/2014	\$165,228	\$255,773	\$90,545	65%	\$35,786	253%
1/1/2012	\$128,910	\$232,013	\$103,103	56%	\$34,841	296%
1/1/2010	\$120,566	\$207,894	\$87,328	58%	\$33,366	262%
1/1/2007	\$137,333	\$190,920	\$53,587	72%	\$34,808	154%
1/1/2005	\$113,780	\$174,530	\$60,751	65%	\$30,671	198%

Actuarial Methods and Assumptions

ACTUARIAL METHODS

Actuarial Cost Method

The Entry Age Normal Actuarial Cost Method has been used in this valuation. Under this method, the normal cost is the amount calculated as the level percentage of compensation necessary to fully fund the prospective benefits from each member's entry age to retirement age.

The actuarial accrued liability represents the theoretical accumulation of all prior years' normal costs for the plan members as if the program had always been in effect. The unfunded actuarial accrued liability is the excess of the actuarial accrued liability over plan assets.

Asset Valuation Method

Market value of assets (adjusted by payables and receivables) adjusted to phase in investment gains or losses above or below the expected rate of investment return over a five-year rolling period. The phase-in is 20% for year one, 40% for year two, 60% for year three, 80% for year four and 100% for year five. The actuarial value of assets may be no less than 90%, or more than 110% of the market value of assets plus payables and receivables.

Fiscal Year Adjustment

The actuarial results are adjusted by the valuation interest rate and salary scale to the beginning of Fiscal Year 2016. The unfunded actuarial accrued liability is rolled forward with normal cost and further adjusted by anticipated contributions and interest.

ACTUARIAL ASSUMPTIONS

Investment Return

7.875% per year net of investment expenses.

Regular Interest Rate Credited to Annuity Savings Account

2% per year.

Salary Increases

Select and ultimate salary assumption –Select period of 5.80% for Groups 1 and 2 in the first 7 years, 8.50% for in the first year and 6.50% in the next two years for Police, and 8.50% in the first 6 years for Fire. Ultimate rate of 3.50%.

Actuarial Methods and Assumptions (Continued)

Withdrawal Prior to Retirement

The rates shown at the following sample ages illustrate the withdrawal assumption. Withdrawal rates are set to zero if the retirement rate at that age is nonzero.

Rate of Withdrawal

Service	Group 1 and 2	Group 4
0	15%	1.5%
1	12%	1.5%
2	10%	1.5%
3	9%	1.5%
4	8%	1.5%
5	7.6%	1.5%
10	5.4%	1.5%
15	3.3%	0.0%
20	2.0%	0.0%
25	1.0%	0.0%
30+	0.0%	0.0%

Disability Prior to Retirement

The rates shown at the following sample ages illustrate the assumption regarding the incidence of disability:

Rate of Disability

Age	Group 1 and 2	Group 4
20	0.01%	0.10%
25	0.02%	0.20%
30	0.03%	0.30%
35	0.06%	0.30%
40	0.10%	0.30%
45	0.15%	1.00%
50	0.19%	1.25%
55	0.24%	1.20%
60	0.28%	0.85%

Disability is assumed to be 50% ordinary and 50% accidental for Group 1 and 2 and 10% ordinary and 90% accidental for Group 4.

Actuarial Methods and Assumptions (Continued)

Rates of Retirement

The rates shown at the following ages illustrate the assumption regarding the incidence of retirement, once the member has achieved 10 years of service:

Age	Group 1 & 2 Male	Group 1 & 2 Female	Group 4	Hired after 4/1/2012		
				Group 1 & 2 Male	Group 1 & 2 Female	Group 4
50	1%	1.5%	2%	0%	0%	1.5%
51	1%	1.5%	2%	0%	0%	1.5%
52	1%	2.0%	2%	0%	0%	1.5%
53	1%	2.5%	2%	0%	0%	1.5%
54	2%	2.5%	7.5%	0%	0%	5%
55	2%	5.5%	15%	0%	0%	10%
56	2.5%	6.5%	10%	0%	0%	7%
57	2.5%	6.5%	10%	0%	0%	20%
58	5%	6.5%	10%	0%	0%	10%
59	6.5%	6.5%	15%	0%	0%	15%
60	12%	5%	20%	25%	30%	20%
61	20%	13%	20%	20%	13%	20%
62	30%	15%	25%	30%	15%	25%
63	25%	12.5%	25%	25%	12.5%	25%
64	22%	18%	30%	22%	18%	30%
65	40%	15%	100%	40%	15%	100%
66	25%	20%	N/A	25%	20%	N/A
67	25%	20%	N/A	25%	20%	N/A
68	30%	25%	N/A	30%	25%	N/A
69	30%	20%	N/A	30%	20%	N/A
70	100%	100%	N/A	100%	100%	N/A

Mortality

The RP-2000 table (sex-distinct) projected using generational mortality with scale BB. (Prior valuation used RP-2000 mortality table with 17 year projection). During employment the healthy employee mortality table is used. Post-employment the healthy annuitant table is used. In-service death is assumed to be 50% accidental for group 1 and 2 and 90% accidental for group 4.

Disabled Life Mortality

The RP-2000 table for healthy annuitants (sex-distinct) generational mortality with scale BB set-forward by 2 years. Death is assumed to be due to the same cause as the disability 40% of the time. (Prior valuation used RP-2000 mortality table with 17 year projection).

Actuarial Methods and Assumptions (Continued)

Family Composition

Members assumed married with 2 dependent children – one male and one female both age 15; age difference between member and spouse assumed to be 3 years (the male being the older).

Cost-of-Living Increases

A 3% COLA on the first \$12,000 of a member's retirement allowance is assumed to be granted every year.

Administrative Expenses

Estimated budgeted amount of \$403,000 for the Fiscal Year 2016 excluding investment management fees and custodial fee is added to the Normal Cost.

Step Increases

Step increases are assumed to be part of the salary increase assumption.

Credited Service

All service is assumed to be due to employment with the municipality.

Contribution Timing

Contributions are assumed to be made at the beginning of the fiscal year.

Total Payroll Increase

The total payroll is assumed to increase at 4.25% per year.

Valuation Date

January 1, 2014.

Summary of Principal Provisions

1. PARTICIPANT

Participation is mandatory for all full-time employees whose employment commences before age 65. There are three classes of members in the retirement system:

- Group 1: general employees
- Group 2: employees in specified hazardous occupations (e.g., electricians)
- Group 4: police and firefighters

2. MEMBER CONTRIBUTIONS

Member contributions vary depending upon date hired as follows:

Date of Hire	Member Contribution Rate
Prior to 1975	5% of Pay
1975 – 1983	7% of Pay
1984 – June 30, 1996	8% of Pay
After June 30, 1996	9% of Pay

Members hired after 1978 contribute an additional 2% of pay over \$30,000.

3. PAY

a. Pay

Gross regular compensation excluding bonuses, overtime, severance pay, unused sick pay, and other similar compensation.

b. Average Pay

The average of pay during the three consecutive years that produce the highest average or, if greater, during the last three years (whether or not consecutive) preceding retirement. For members hired after April 1, 2012, five-year averages will be used.

4. CREDITED SERVICE

Period during which an employee contributes to the retirement system plus certain periods of military service and "purchased" service.

5. SERVICE RETIREMENT

a. Eligibility

1) For Group 1, 2 and 4 and hired pre-April 1, 2012: Completion of 20 years of credited service or attainment of age 55 and completion of 10 years of credited service. If a member of group 4, age 55 with no service requirement is also eligible for service retirement.

2) Hired after April 1, 2012: (Group 1 – Age 60, Group 2 – Age 55, Group 4 – Age 50) and completion of 10 years of service

Summary of Principal Provisions (Continued)

b. Retirement Allowance

Determined as the product of the member's benefit percentage, average pay and credited service, where the benefit percentage is shown below (maximum allowance of 80% of average pay):

Benefit Percentage	Group 1	Group 2	Group 4
2.5%	65+	60+	55+
2.4	64	59	54
2.3	63	58	53
2.2	62	57	52
2.1	61	56	51
2.0	60	55	50
1.9	59	N/A	49
1.8	58	N/A	48
1.7	57	N/A	47
1.6	56	N/A	46
1.5	55	N/A	45
Hired after April 1, 2012*			
2.5%	67+	62+	57+
2.35	66	61	56
2.20	65	60	55
2.05	64	59	54
1.90	63	58	53
1.75	62	57	52
1.60	61	56	51
1.45	60	55	50

*Reduction is .125% for each year early instead of .15% per year for employees with over 30 years of service.

In addition, veterans receive an additional \$15 per year for each year of credited service up to 20 years

6. DEFERRED VESTED RETIREMENT

a. Eligibility

Completion of 10 years of credited service (for elected and appointed members, 6 years in the event of involuntary termination).

b. Retirement Allowance

Determined in the same manner as "Service Retirement" section above with the member eligible to start collecting a benefit at age 55, (or age 57 for post-April 1, 2012 hires) or defer until later at his or her discretion. If a member chooses, his or her contributions with interest may be withdrawn. The amount of interest he or she will receive depends on length of service and whether or not the termination of employment was voluntary.

Summary of Principal Provisions (Continued)

7. ORDINARY DISABILITY RETIREMENT

a. Eligibility

Non-job related disability after completion of 10 years of credited service.

b. Retirement Allowance

Determined in the same manner as "Service Retirement" section and calculated as if the member had attained age 55 (or age 57 for those hired after April 1, 2012), if younger. Veterans receive 50% of pay (during final year) plus an annuity based on accumulated member contributions with interest.

8. ACCIDENTAL DISABILITY RETIREMENT

a. Eligibility

Disabled as a result of an accident in the performance of duties. No age or service requirement.

b. Retirement Allowance

72% of pay plus an annuity based on accumulated member contributions with interest. Also, a dependent's allowance per year for each child. Total allowance not to exceed 100% of pay (75% for members hired after 1987).

9. NON-OCCUPATIONAL DEATH

a. Eligibility

Dies while in active service, but not due to occupational injury. 2 years of service.

b. Retirement Allowance

Benefit as if Option C had been elected (see below) and member had attained age 55 (or age 57 for those hired after April 1, 2012) if younger. Minimum monthly benefits provided as follows:
spouse - \$500, first child - \$120, each additional child - \$90

10. OCCUPATIONAL DEATH

a. Eligibility

Dies as a result of an occupational injury.

b. Benefit Amount

72% of pay plus refund of annuity savings fund balance. In the case of an accidental disability retiree who dies of the same cause, the beneficiary receives 72% of the last 12 months salary or the current pension amount, whichever is greater.

Summary of Principal Provisions (Continued)

11. COST-OF-LIVING INCREASES

An increase of up to 3% applied to the first \$12,000 of annual benefit. Funded by the Municipality from Fiscal Year 1999. Percentage increase is voted on each year by the Retirement Board. Cost-of-living increases granted during Fiscal Year 1982 through Fiscal 1998 are reimbursed by the Commonwealth.

12. OPTIONAL FORMS OF PAYMENT

- Option A

Allowance payable monthly for the life of the member.

- Option B

Allowance payable monthly for the life of the member with a guarantee of remaining member contributions with interest.

- Option C

Allowance payable monthly for the life of the member with 66-2/3% continuing to the member's beneficiary upon the member's death. If the beneficiary predeceases the member, the allowance amount "pops up" to the non-reduced amount.

Glossary of Terms

- Present Value of Benefits

Represents the dollar value today of all benefits expected to be earned by current members if all actuarial assumptions are exactly realized.

- Actuarial Cost Method

The procedure that is used to allocate the present value of benefits between the liability that is attributable to past service (Actuarial Accrued Liability) and that attributable to future service.

- Actuarial Assumptions

Estimates are made as to the occurrence of certain events that determine the level of benefits to be paid and how long they will be provided. The more important actuarial assumptions include the investment return on assets, salary increases and the rates of turnover, disability, retirement and mortality.

- Actuarial Accrued Liability

The portion of the Present Value of Benefits that is attributable to past service.

- Normal Cost

The portion of the Present Value of Benefits that is attributable to benefits to be earned in the coming year.

- Actuarial Assets

Market value of assets (adjusted by payables and receivables).

- Unfunded Actuarial Accrued Liability

That portion of the Actuarial Accrued Liability not covered by System Assets.

- PERAC

Public Employee Retirement Administration Commission, a division of the State government which has regulatory authority over the administration of the retirement system.

- PRIT

Pension Reserves Investment Trust Fund is the state controlled and administered fund for the investment of assets for members of the retirement system.

- GASB

Government Accounting Standards Board (issues guidance for disclosure of retirement system liabilities).